WHAT IS CLAIMED IS:

1. A method comprising the steps of:
entering semiconductor process parameters into a statistical process control system; and
configuring an equipment interface, using the statistical process control system, to collect the semiconductor process parameters.

2. The method as in Claim 1, wherein the step of configuring includes providing a data collection plan to the equipment interface.

3. The method as in Claim 2, wherein the data collection plan is provided in response to a request from the equipment interface.

4. The method as in Claim 1, wherein the step of selecting entering parameters includes referencing a data collection capability specification accessible to the statistical process control system.

5. The method as in Claim 1, further including the steps of:
measuring a process parameter on a semiconductor wafer, the process parameter measured in accordance with the data collection plan; and
providing the process parameter to the statistical process control system through the equipment interface.

6. The method as in Claim 5, wherein the step of measuring includes providing a trigger to a metrology tool from a manufacturing execution system.

7. A method comprising the steps of:

establishing a data collection plan using a statistical process control system, the data collection plan identifying data to collect from a semiconductor tool; and

providing the data collection plan to an equipment interface of the semiconductor tool through the statistical process control system.

8. The method as in Claim 7, wherein the step of providing is performed in response to a request from the equipment interface.

9. The method as in Claim 7, wherein the step of establishing includes referencing a data collection capability specification accessible to the statistical process control system.

10. The method as in Claim 7, further including the step of performing a measurement consistent with the data collection plan.

11. The method as in Claim 10, wherein the step of performing a measurement includes providing a trigger to a metrology tool from a manufacturing execution system.

12. A computer readable medium tangibly embodying a program of instructions, said program of instructions including instructions to:

establish a data collection plan using a statistical process control system, the data collection plan identifying data to collect from a semiconductor tool; and

provide the data collection plan to an equipment interface of the semiconductor tool through the statistical process control system.

13. The computer readable medium as in Claim 12, wherein the instruction to provide the data plan to the equipment interface are performed in response to a request from the equipment interface.

14. The computer readable medium as in Claim 7, wherein the instructions to establish a data collection plan include referencing a data collection capability specification accessible to the statistical process control system.

15. The computer readable medium as in Claim 7, wherein the program of instructions further includes instructions to collect measurement data consistent with the data collection plan.

16. The computer readable medium as in Claim 10, wherein the instructions to collect measurement data are performed in response to a trigger provided to a metrology tool from a manufacturing execution system.

17. A system comprising:

a user interface to:

receive a capability specification identifying a data collection capability of a semiconductor tool;

receive a data collection plan, the data collection plan used in conjunction with the capability specification to identify data to be collected from a semiconductor tool; and

receive a process control strategy;

a communications port to configure an equipment interface of a semiconductor tool to collect measurement data from the semiconductor tool;

a communications port to obtain measurement data from the equipment interface;

a data broker to:

receive the measurement data from the communications port; and

provide the measurement data to a statistical process client; and

a statistical process client to evaluate the measurement data in accordance with the process control strategy.

18. The system as in Claim 17, further including a communications port to provide control signals to a manufacturing execution system.

19. The system as in Claim 18, wherein the control signals are provided by the statistical process client in response to an evaluation of the measurement data.

20. The system as in Claim 17, wherein the user interface is a graphical user interface.

21. The system as in Claim 17, wherein the user interface is an Internet interface.

22. The system as in Claim 17, further including a data history client, and wherein the data broker is further to provide the measurement data to the data history client.

23. The system as in Claim 22, wherein the data history client is to provide the measurement data to a non-volatile storage medium.

24. A method comprising the steps of:

receiving, at a statistical process control system, a capability specification identifying a data collection capability of a semiconductor tool;

receiving a data collection plan at the statistical process control system, the data collection plan used in conjunction with the capability specification to identify data to be collected from a semiconductor tool;

configuring an equipment interface, using the statistical process control system, to collect measurement data from the semiconductor tool;

obtaining the measurement data from the semiconductor tool;

providing the measurement data to a statistical process client through a data broker, the statistical process client being part of the statistical process control system;

receiving a process control strategy at the statistical process control system; and

evaluating the measurement data in accordance with the process control strategy using the statistical process control client.

25. The method as in Claim 24, further including the step of verifying that the process control strategy is consistent with the data collection plan, wherein the verifying is performed using the statistical process control system.

26. The method as in Claim 24, wherein the step of configuring includes providing a data collection plan to the equipment interface.

27. The method as in Claim 26, wherein the data collection plan is provided in response to a request from the equipment interface.

28. The method as in Claim 24, wherein the step of obtaining includes providing a trigger to the semiconductor tool from a manufacturing execution system.

29. The method as in Claim 24, wherein the capability specification, the data collection plan and the process control strategy are received via a common user interface.

30. The method as in Claim 29, wherein the user interface is a graphical user interface.

31. The system as in Claim 24, wherein the user interface is an Internet interface.